New England Common Assessment Program

Released Items
2007

Grade 4
Mathematics

Mathematics

1 Which number sentence is true?

- ○ A. 100 + 85 = 10 + 85
- ○ B. 100 + 85 = 150 + 8
- ○ C. 100 + 85 = 105 + 80
- ○ D. 100 + 85 = 108 + 5

2 This chart shows how many stars some classes earned.

Stars Earned by Classes

Teacher	Number of Stars
Mr. Hogan	750
Mrs. Lee	?
Ms. Walsh	500

Mrs. Lee's class earned **fewer** stars than Mr. Hogan's class and **more** stars than Ms. Walsh's class. Which number could be the number of stars Mrs. Lee's class earned?

- ○ A. 430
- ○ B. 680
- ○ C. 800
- ○ D. 1250

3 Seth has 3 one-dollar bills and 12 dimes. Tim has $4.02. Which statement is true?

- ○ A. Seth has more money than Tim.
- ○ B. Seth has less money than Tim.
- ○ C. Seth and Tim have the same amount of money.

4 The students in Mr. Hill's class are solving this problem.

> Peter had 10 pennies. Then he found more pennies.
>
> Now Peter has 16 pennies. How many pennies did Peter find?

Three students wrote these number sentences to solve the problem.

$$16 - 10 = \square \quad 10 - \square = 16 \quad 10 + \square = 16$$
   Ella   **Connie**   **Andy**

Who wrote a correct number sentence?

- ○ A. only Connie and Andy
- ○ B. only Connie
- ○ C. only Andy and Ella
- ○ D. only Ella

**5** This chart shows how many miles long the Appalachian Trail is in three states.

Appalachian Trail

State	Miles Long
Maine	281
New Hampshire	161
Vermont	150

How many miles of the Appalachian Trail are in these three states?

○ A. 311
○ B. 442
○ C. 492
○ D. 592

6 Which statement is true?

○ A. One line segment can divide a triangle into two smaller triangles.
○ B. One line segment can divide a square into two smaller squares.
○ C. One line segment can divide a circle into two smaller circles.
○ D. One line segment can divide a hexagon into two smaller hexagons.

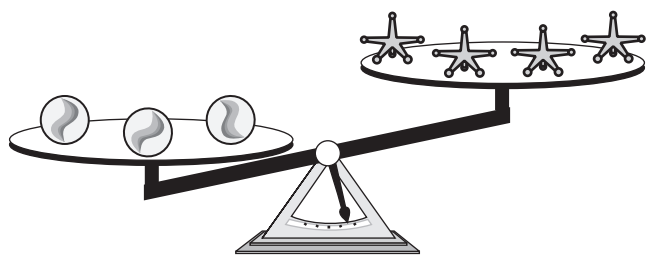**7** This is a model of the ceiling in Ted's room.
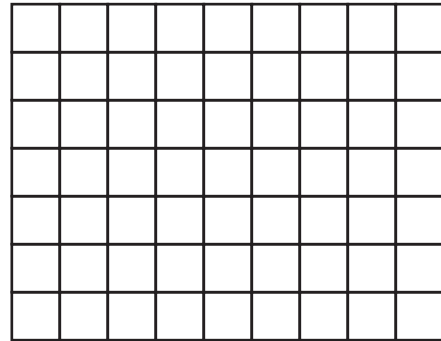
Key

□ represents 1 square foot

How many square-foot tiles does Ted need to cover the ceiling?

○ A. 63
○ B. 54
○ C. 32
○ D. 28

8 Cole wants to balance this scale.

He knows one ⊘ weighs the same as four ☆. How many **more** ☆ should Cole put on the right side of the scale to balance it?

- ○ A. 2
- ○ B. 4
- ○ C. 8
- ○ D. 10

9 Ben asked 26 students what their favorite sport was. He made this tally chart.

Favorite Sports

Sport	Number of Votes
Soccer	卌 |||
Hockey	|||
Baseball	卌 ||
Basketball	卌	
Volleyball	||

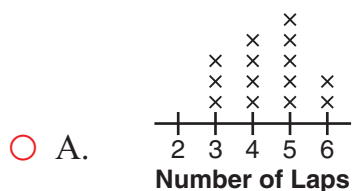Then 3 students changed their votes from soccer to hockey.

What sport has the most votes now?

- ○ A. soccer
- ○ B. hockey
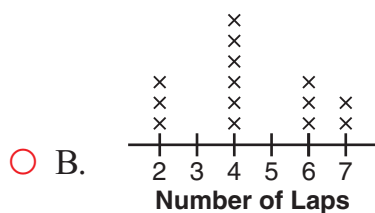- ○ C. baseball
- ○ D. basketball

10 Claudia made a line plot to show how many laps students in her class ran around a track.

- The greatest number of laps a student ran was 6.
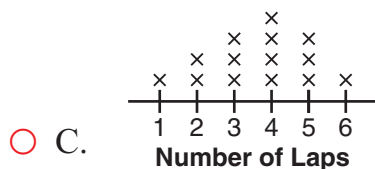
- The fewest number of laps a student ran was 2.

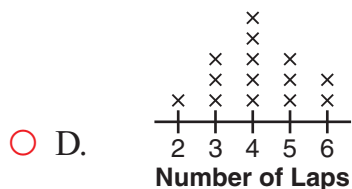Which line plot could Claudia have made?

○ A.

```
              ×
         ×    ×
    ×    ×    ×
    ×    ×    ×    ×
    ×    ×    ×    ×
  +--+--+--+--+--+
    2  3  4  5  6
   Number of Laps
```

Key
× represents 1 student

○ B.

```
              ×
              ×
              ×
    ×         ×         ×
    ×         ×    ×    ×
    ×         ×    ×    ×
  +--+--+--+--+--+--+
    2  3  4  5  6  7
   Number of Laps
```

Key
× represents 1 student

○ C.

```
                ×
           ×    ×    ×
      ×    ×    ×    ×
   ×  ×    ×    ×    ×    ×
  +--+--+--+--+--+--+
   1  2  3  4  5  6
   Number of Laps
```
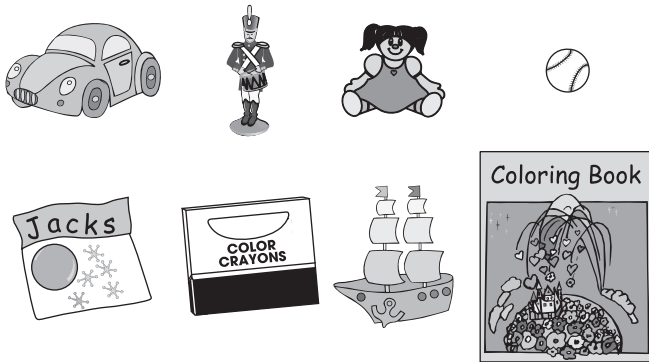
Key
× represents 1 student

○ D.

```
              ×
              ×
         ×    ×    ×
         ×    ×    ×    ×
    ×    ×    ×    ×    ×
  +--+--+--+--+--+
    2  3  4  5  6
   Number of Laps
```

Key
× represents 1 student

4
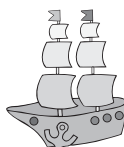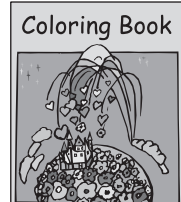
11 Each child picked two toys from this set of toys.

Travis picked the [ship] and the [toy soldier].

Pat picked the [doll] and the [Jacks].

Jerry picked the [COLOR CRAYONS] and the [Coloring Book].

What **fraction** of the set of toys is left over?

12 A class needs to earn 100 stars to have a pizza party. The class earned 27 stars in March and 32 stars in April. How many more stars does the class need to earn to have a pizza party?

13 Look at this spinner.
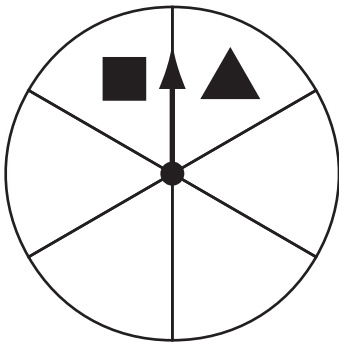
Use ▲ and ■ to complete the four empty sections in the spinner so that the arrow is **most likely** to land on a ■.

14 Mary, Ed, Rob, and Lilly are all reading the same book. Last week,

- Mary read $\frac{1}{2}$ of the book,

- Ed read $\frac{2}{4}$ of the book,

- Rob read $\frac{1}{3}$ of the book, and

- Lilly read $\frac{2}{3}$ of the book.

a. Pick two people from this list. Write a sentence that compares how much these two people read. Use the words "more than," "less than," or "the same" in your sentence.

b. Pick two other people from the list. Write a sentence that compares how much these two people read. Use the words "more than," "less than," or "the same" in your sentence.

15 Look at this shape.

1 centimeter
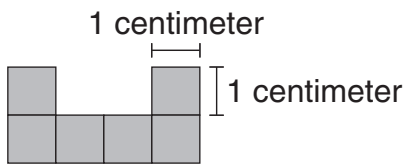
1 centimeter

a. What is the perimeter of the shape?

_____ centimeters

b. Explain what perimeter means.

16 Holly started this table to show how much money she earns walking dogs. Holly always earns the same amount of money for each dog she walks.

**Money Earned
Walking Dogs**

Number of Dogs Walked	Money Earned
2	$ 4.00
4	$ 8.00
6	$12.00
8	$16.00
10	
12	
14	

a. Complete the table.

b. How much money will Holly earn if she walks 13 dogs?

Grade 4 Mathematics Released Item Information

Released Item Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
No Tools Allowed	✓		✓		✓							✓			✓	
Content Strand[1]	NO	NO	NO	NO	NO	GM	GM	FA	DP	DP	NO	NO	DP	NO	GM	FA
GLE Code	3-1	3-2	3-2	3-3	3-4	3-1	3-6	3-4	3-2	3-3	3-1	3-4	3-5	3-2	3-6	3-1
Depth of Knowledge Code	1	2	2	2	1	2	1	2	2	2	2	2	2	3	2	2
Item Type[2]	MC	MC	MC	MC	MC	MC	MC	MC	MC	MC	SA	SA	SA	SA	SA	SA
Answer Key	C	B	A	C	D	A	A	C	C	D						
Total Possible Points	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2

[1]Content Strand: NO = Numbers & Operations, GM = Geometry & Measurement, FA = Functions & Algebra, DP = Data, Statistics, & Probability

[2]Item Type: MC = Multiple Choice, SA = Short Answer